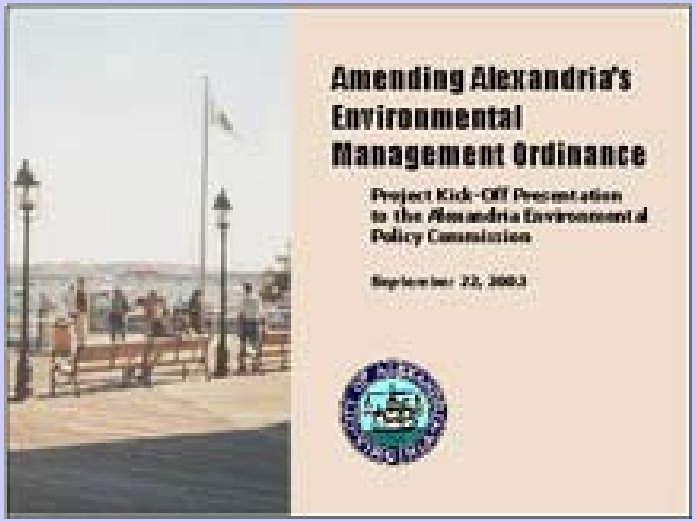
Amending Alexandria's Environmental Management Ordinance

Presentation to the Environmental Policy Commission

February 23, 2004

Review of September Kick-Off Presentation

- Presented an overview of the existing ordinance.
- Discussed State mandated regulatory changes.
- Presented options under consideration.
- Described the stream mapping project.

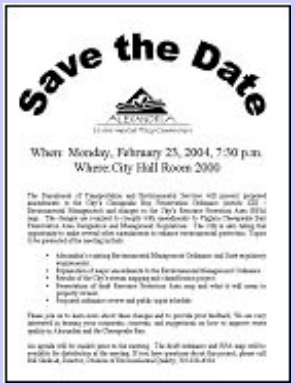


Overview of Tonight's Presentation

- Review existing ordinance and State requirements.
- Explain major amendments to the ordinance.
  - Changes to meet new State requirements.
  - Voluntary changes to enhance Alexandria's environment.
- Present the results of the stream mapping project.
- Present the draft RPA map and explain what it means to residents.

Review of Ordinance Amendment Process

- June/July 2003 – Meetings with CBLAD.
- August 27th – City Manager Briefing.
- August/November – Stream Mapping Project.
- September 22nd – EPC Kick-Off Presentation.
- December 2nd – Planning Commission Kick-Off Presentation.
- January 28th – Alexandria Federation of Civic Associations Presentation.
- February 23rd – Second EPC Presentation.


Save the Date

When: Monday, February 23, 2004, 7:30 p.m.
Where:City Hall Room 2000

Review of Ordinance Amendment Process

- March 22nd – Community/Stakeholder Meeting.
- April – City Council and Planning Commission Work Sessions.
- April 19th – EPC Meeting.
- May – Planning Commission/City Council Public Hearings.
- June 30th – Compliance deadline.
- Post-June – Develop support materials for ordinance implementation.

Key Points About The City's Existing Ordinance

- City adopted Article XIII in 1992 to comply with the Virginia Chesapeake Bay Preservation Act.
- Article XIII established two levels of water quality management:
  - Resource Management Areas (RMAs) apply performance criteria City-wide.
  - Resource Protection Areas (RPAs) apply more stringent requirements on specific land features.

Current Resource Protection Area Requirements

- RPAs are defined as sensitive lands with intrinsic water quality value.
  - Tidal wetlands and shores;
  - Non-tidal wetlands connected by surface flow and contiguous to tributary streams; and,
  - A 100-foot buffer area around all these components plus “tributary streams.”
- Uses in RPAs are restricted to those specifically allowed in Article XIII.

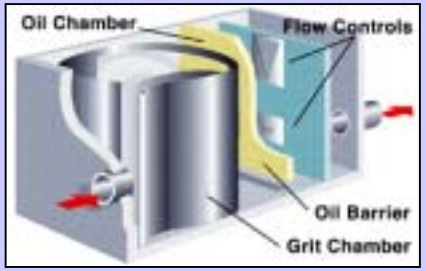
Existing Alexandria RPA Map

Current Resource Management Area Requirements

- Include all lands not designated as RPAs.
- Uses in RMAs are governed by the Zoning Ordinance, but must meet additional performance criteria:
  - Minimize land disturbance.
  - Maximize preservation of indigenous vegetation.
  - Minimize impervious surface cover.
  - Meet water quality performance criteria using onsite best management practices (BMPs).

Current Resource Management Area Requirements

- Stormwater quality management performance criteria:
  - Treat the first half inch of all stormwater runoff by some type of best management practice.
  - Reduce pollution by 10% from existing conditions during redevelopment.
  - Do not exceed the jurisdiction-wide average pollutant discharge during development.



Existing Exceptions Process

- The City can make exceptions to both RPA and RMA requirements.
- A request to encroach into an RPA requires a Water Quality Impact Assessment.
- Exceptions are currently handled administratively by the Director of T&ES.
- Article XIII provides flexibility for nonconforming uses (prior to 1992) and exempts some uses altogether.

Overview of State Mandated Changes and Impacts

Most changes will impact specific properties, rather than City-wide.

Major changes include:

- All “water bodies with perennial flow” must be protected with a 100-foot Resource Protection Area (RPA).
- The RPA map is now guidance, and perennial flow must be field verified.
- RPA buffer exceptions must now go through a public hearing process.

Preparing for Changes

- What properties will be affected?
- What process should the City adopt to review RPA exceptions?
- How should the City address plans that are “in process” when the changes occur?

City Stream Mapping and Classification Project

- 13.6 miles of City streams were assessed, not including obviously perennial streams such as Four Mile Run, Cameron Run, Holmes Run, and Backlick Run.
- Streams were classified as perennial, intermittent, and ephemeral.
- Results have been used to create a new RPA map.
- The project has also allowed the City to assess the impacts of protecting other features, such as intermittent streams.

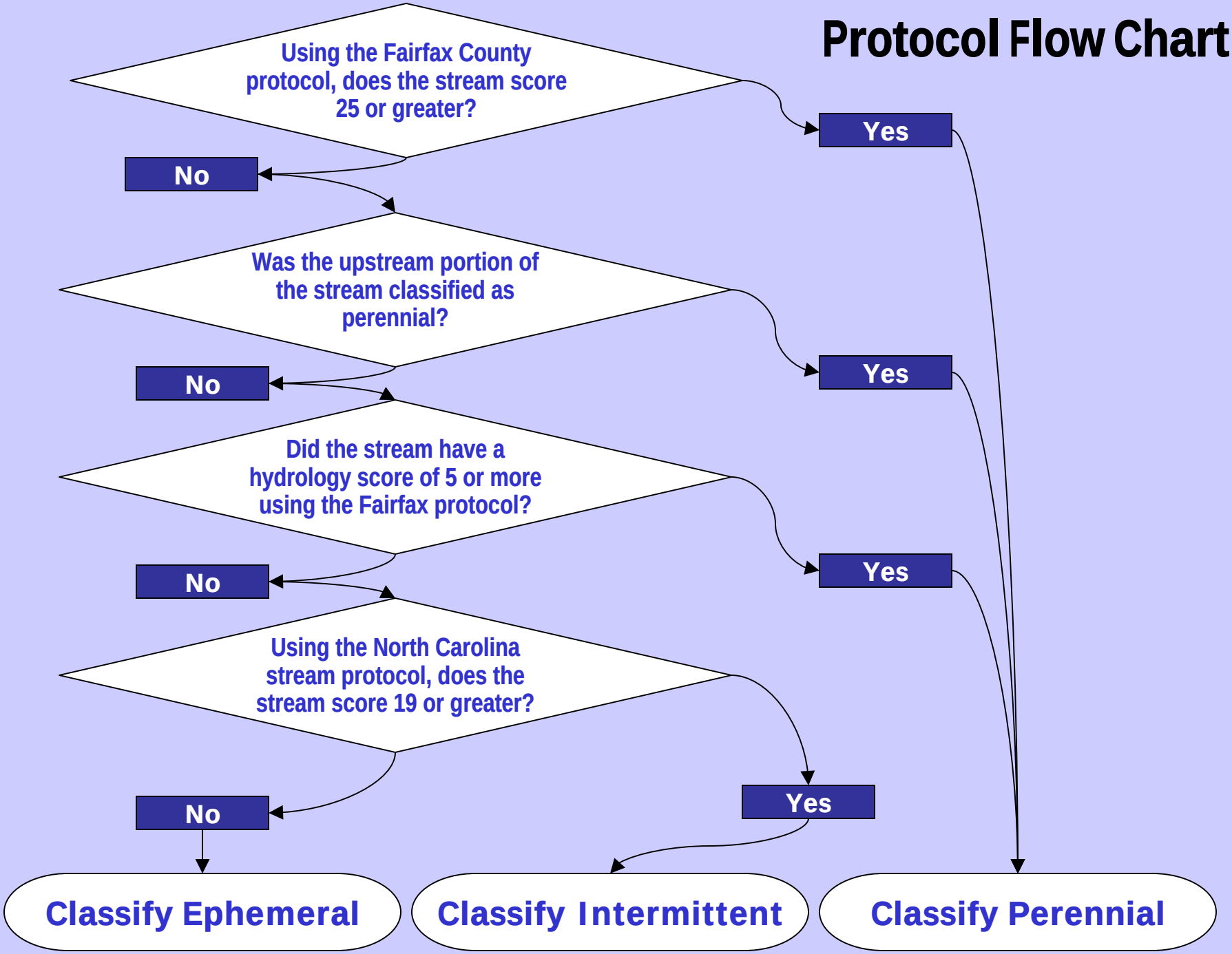
City Stream Mapping and Classification Project

- CBLAD-approved protocols adapted to Alexandria's urban environment:
  - Fairfax County protocol for perennial streams.
  - North Carolina protocol for intermittent streams.
- Field tested protocols on City streams.

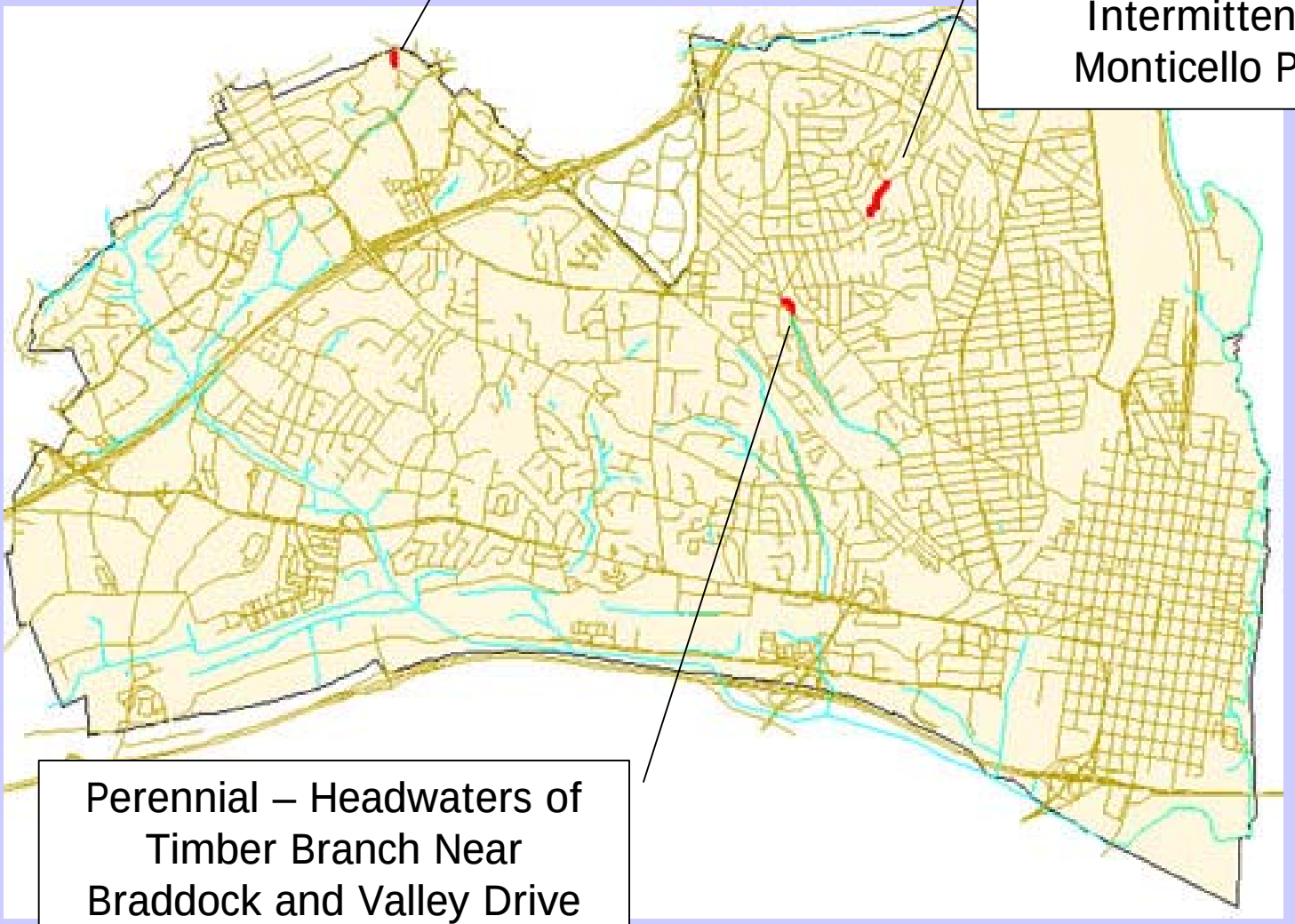
City Stream Mapping and Classification Project

- Protocol scoring criteria:
  - Stream flow and hydrology.
  - Geomorphology.
  - Stream bed soils.
  - Vegetation.
  - Benthic macroinvertebrates.
  - Vertebrates.
- The protocol recognizes that man-made impacts can suppress the overall score.
  - In these cases, a higher weighting went to observations concerning stream flow and hydrology.

Protocol Flow Chart

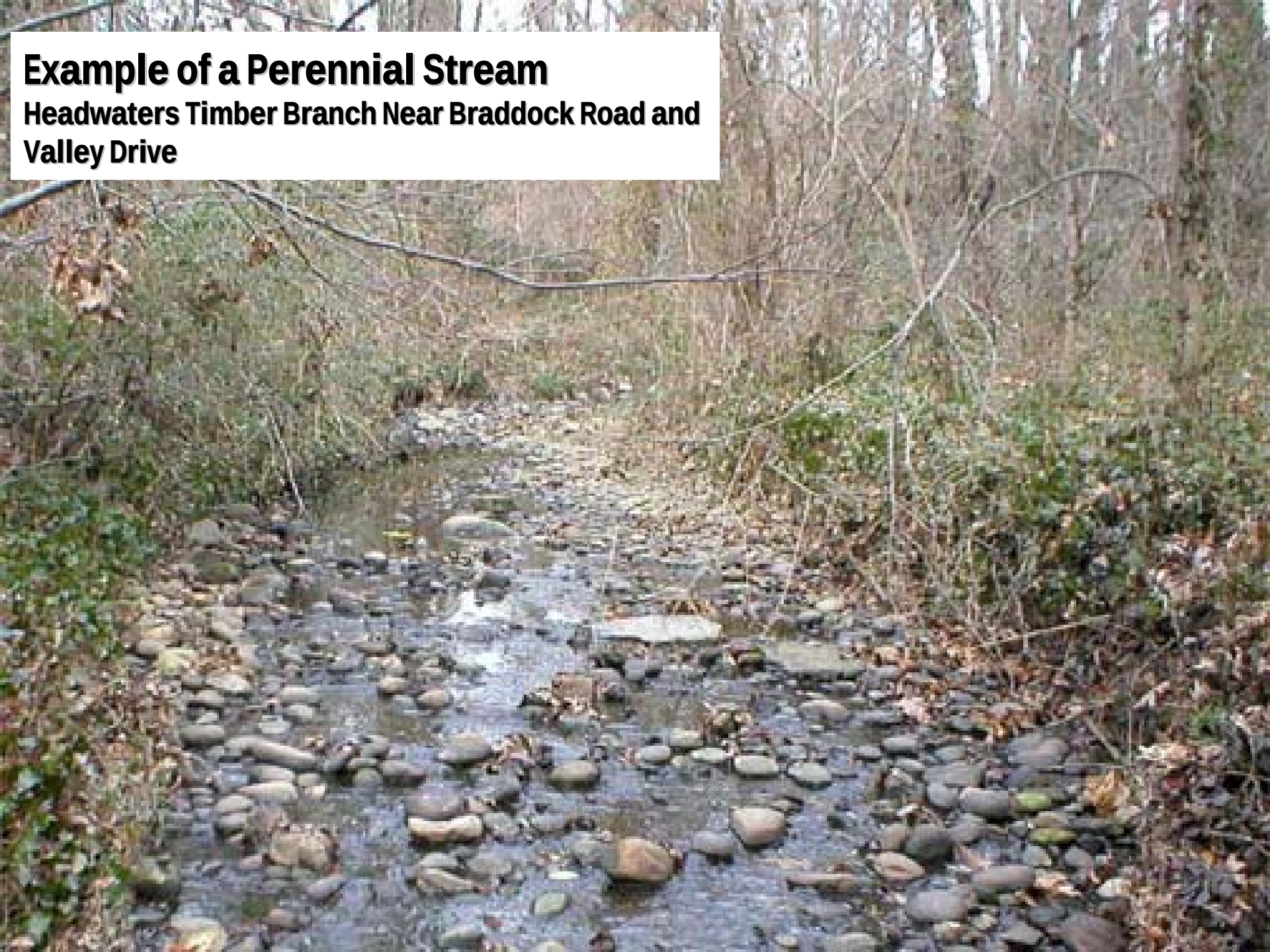


Examples


Ephemeral – NVCC Near Dawes Avenue
Intermittent – Monticello Park
Perennial – Headwaters of Timber Branch Near Braddock and Valley Drive

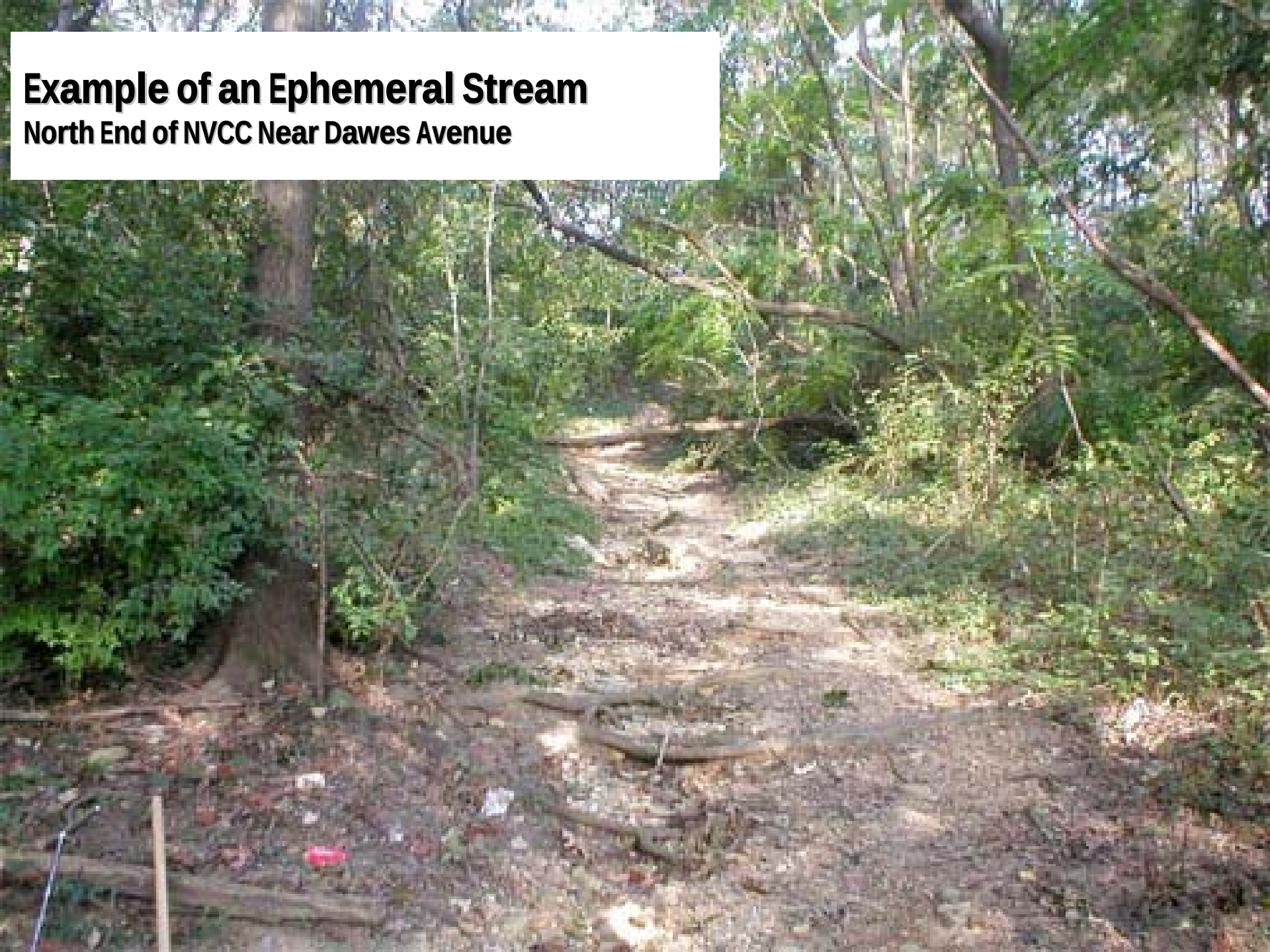
Example of a Perennial Stream

Headwaters Timber Branch Near Braddock Road and Valley Drive



Example of an Intermittent Stream

Monticello Park



Example of an Ephemeral Stream

North End of NVCC Near Dawes Avenue

Stream Survey Results

- 14 new perennial stream reaches (new RPAs).
- Three existing RPAs re-classified as intermittent stream reaches.
- Approximately 1.7 miles of ephemeral streams identified.

Choosing an RPA Exception Process

- Some exceptions to the RPA requirements may no longer be held administratively.
- The City must establish a public hearing process to handle these exceptions.

What activities can still be approved administratively?

- When application of the RPA results in a loss of buildable area on a lot platted before March 1, 2002 and the encroachment is less than 50 feet.
- Expansion of a legally nonconforming principal structure if the expansion is of similar bulk and scale to surrounding structures.

What activities would require a public hearing?

- When application of the RPA results in a loss of buildable area on a lot platted before March 1, 2002 and the encroachment is more than 50 feet.
- The modification or construction of any non-attached accessory structure such as a gazebo, shed, detached garage, etc.

What about redevelopment?

- Redevelopment in the RPA is allowed through an administrative process if:
  - It is consistent with the Master Plan.
  - **There is no additional encroachment.**
  - There is no increase in nonpoint source pollution.
- Otherwise, the the redevelopment must go through the exception process.

RPA Exception Process

- Local governments have adopted a range of review methodologies.
- The Planning Commission is proposed to hear exceptions in the City.
- The EPC will continue to serve in an advisory capacity using existing authority.
- The process will be timed to provide review by the EPC before the Planning Commission.
- The exception request can be heard either independently or sequentially as determined by the Directors of T&ES and Planning.

In Process Development -- Vesting

- How will the City deal with plans that are currently under review?
- CBLAD leaves the decision to the local government.
  - However, there is an expectation that plans will comply to the extent possible.
- Only applies to plans that are in process.
  - Under no circumstances can the City include a “grace period” for submittal of plans.

In Process Development -- Vesting

- The City is proposing that the following complete applications will be subject to existing requirements if submitted on or before February 23rd:
  - Preliminary site plans
  - Building permits
  - Subdivision plans
  - Plot plans
  - Special use permits
- Anything submitted after February 23rd will be subject to the new requirements.

Recap of Major Changes

- Stream mapping project has resulted in a new RPA map.
- This map is guidance. If the map does not show an RPA on the property, an assessment must still be made.
- All new plan and permit submittals will be subject to the new requirements.
- RPA exceptions must go through a public hearing process administered by the Planning Commission.

Other Changes Resulting From State Amendments

- Defines public roads, which are exempt from certain elements of Article XIII.
- Deletes provisions allowing the City to reduce a buffer area by 50 feet if combined with other best management practices.
- Allows public flood control and regional stormwater management facilities under certain circumstances.
- Aligns the City's stormwater quality management performance criteria with the State Stormwater Management Regulations.

Additional Opportunities to Enhance Our Environment

- City-Wide Changes
  - Tool box approach to stormwater management requirements.
  - Enhancing BMP maintenance and enforcement.
- Changes That Affect Individual Properties
  - Protecting natural intermittent streams.

Toolbox Approach to Stormwater Management

- Current ordinance requires treatment of stormwater using traditional onsite BMPs.
- Why change?
  - Onsite and offsite alternatives to traditional BMPs can, in some instances, provide greater water quality benefits.
  - Additional environmental benefits, such as improving habitat, increasing green infrastructure and open space, etc.
  - Site-specific constraints in the past have resulted in the need for waivers.

Toolbox Approach to Stormwater Management

- What will be in the toolbox?
  - Traditional onsite BMPs.
  - Stream and buffer restoration.
  - Stream daylighting.
  - Removal of existing RPA encroachments.
  - Combined sewer system separation.
  - Permanent preservation of open spaces.
  - Contribution to the Alexandria Water Quality Improvement Fund.
  - Other tools as identified by the City.

Toolbox Approach to Stormwater Management

- Who will decide?
  - The City will determine whether the application of the toolbox approach will achieve greater water quality benefits for a particular site.
  - Eight criteria have been proposed to help make this determination.
- How will the tools be developed?
  - T&ES, with input from Planning and Zoning, Parks and Recreation, the EPC and others, will develop the tools.

Example of Toolbox Approach

Stream Restoration

- Restores local aquatic habitats.
- Improves green infrastructure.
- Reduces sediment loadings to the Potomac River and Chesapeake Bay.

Example of Toolbox Approach

Combined Sewer Separation

- Samuel Madden redevelopment.
  - Two City blocks of Old Town completely separated as a result of the project.
- Benefit:
  - Provides greater water quality benefits by reducing combined sewer overflows.

Examples of Toolbox Approach

Contribution to Water Quality Improvement Fund

- Usually applicable to smaller sites and single-family residence not part of a subdivision.
- Difficult to treat first half inch of runoff of the entire site.
- Installation of a BMP has significant environmental impacts, such as tree loss.

Example of Toolbox Approach

RPA Restoration

- Removing existing impervious surfaces from RPA.
  - Riparian buffer restored, providing water quality benefits as well as improved aquatic habitats.
  - Reduce habitat fragmentation.
  - Increase green infrastructure and open space.

Enhancing BMP Maintenance Requirements

- Maintenance of private BMPs is emerging as an important issue.
- How do we protect our investment in these important water quality tools?

Enhancing BMP Maintenance Requirements

- Owners of any stormwater management facility will be required to submit certification that maintenance has taken place on a schedule determined appropriate for the facility.
- City staff will have access to the facility for periodic inspections.
- If corrective action is not performed within a specified period of time, the City may perform the maintenance and bill the owner.

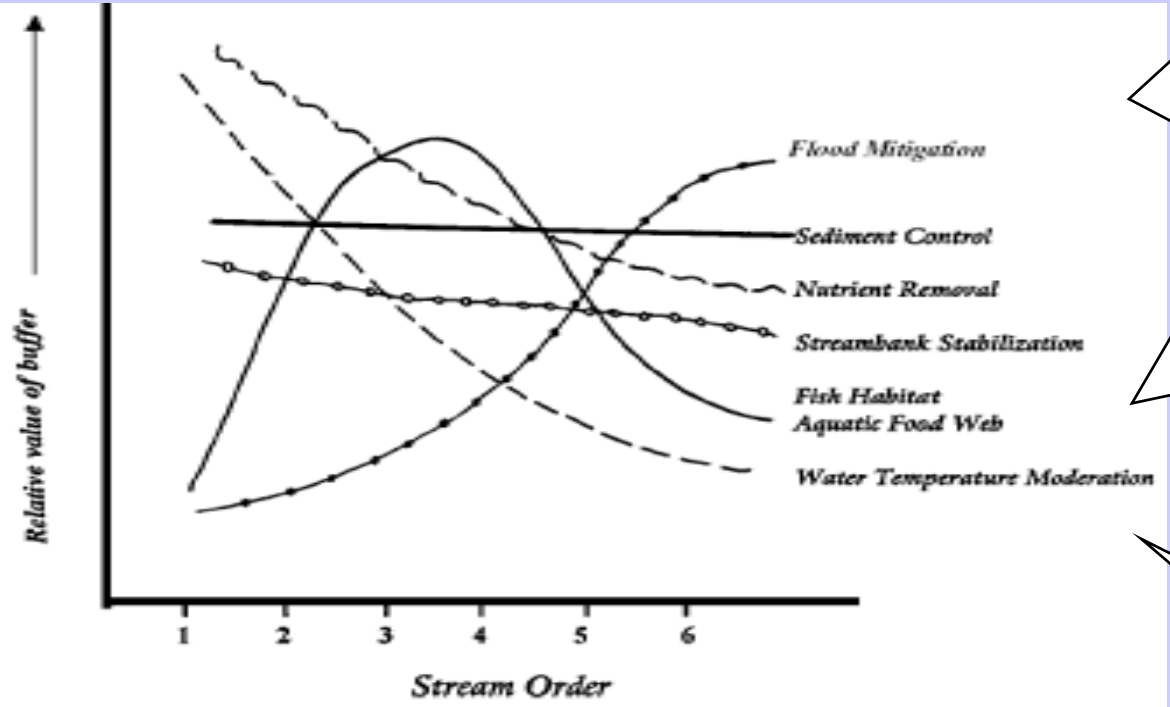
Protecting Natural Intermittent Streams and Wetlands

- The City is proposing to protect intermittent streams in natural channels and non-tidal wetlands.
- Goes above and beyond the State's minimum requirements.

Protecting Natural Intermittent Streams and Wetlands

- Why protect intermittent streams and wetlands?
  - The quality of intermittent streams and wetlands directly impacts the quality of perennial streams.
- What does the City propose?
  - A 50 foot buffer area “performance criteria” will be established.
  - However, because they are not RPAs, the City may allow a combination of buffer area and other improvements to achieve the performance criteria.

The Role of Different Sized Streams



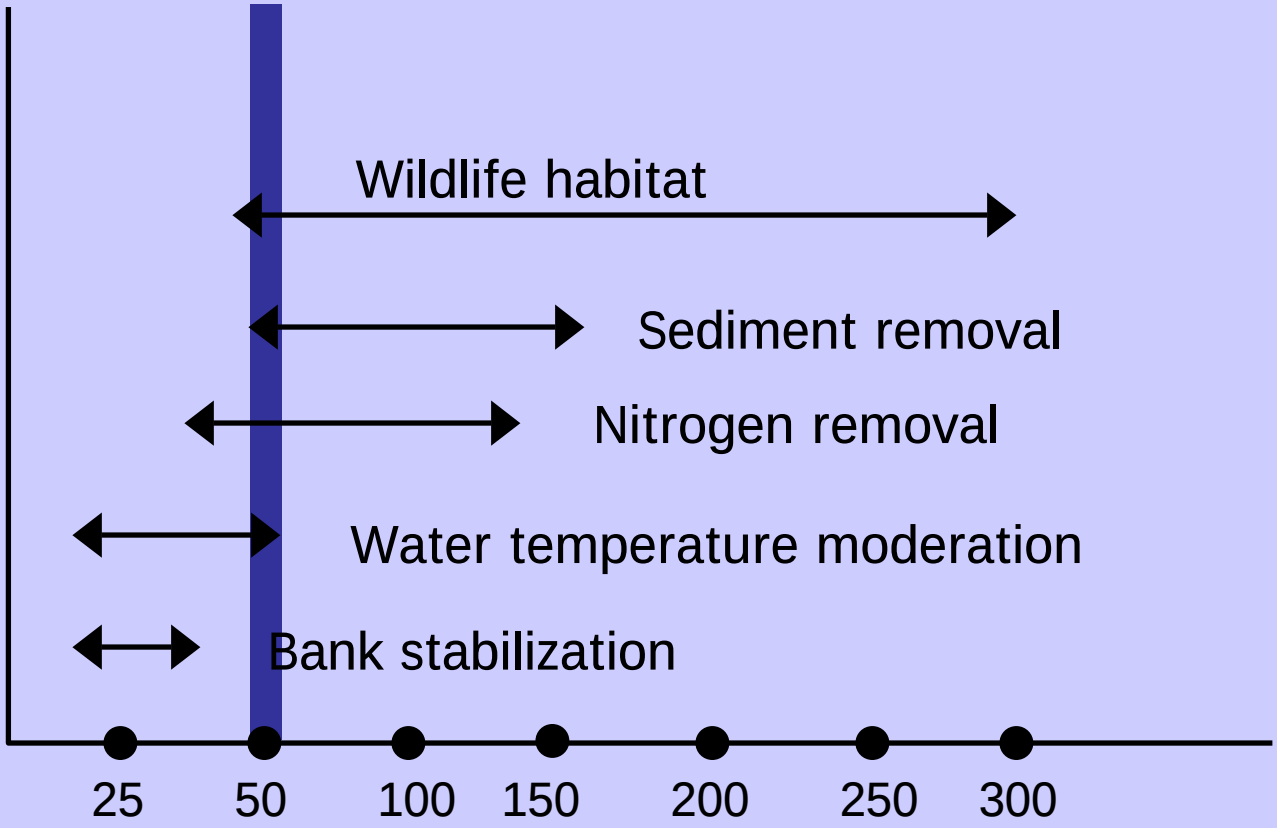
Small streams have greatest impact on temperature, nutrients, and stabilization.

Medium streams have greatest impact on aquatic habitats.

Large streams have greatest impact on flood control.

Source: Chesapeake Bay Riparian Buffer Handbook, 1998.

Why a 50 Foot Buffer?



Source: Chesapeake Bay Riparian Buffer Handbook, 1998.

Impacts to Property Owners

- Preservation or creation of a 50 foot buffer is preferred approach.
- If a 50 foot buffer cannot reasonably be established, the City may allow alternative combinations of protection and mitigation.

Questions and Discussion